



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,758	04/08/2005	Ming Li	09070.0002-00000	9067
22852 7590 12/13/2007 FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			EXAMINER PHUNG, LUAT	
			ART UNIT 2616	PAPER NUMBER
			MAIL DATE 12/13/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/530,758

Applicant(s)

LI ET AL.

Examiner

Luat Phung

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4/8/2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 26 July 2005, 13 June 2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This is in response to a letter for patent filed on April 8, 2005 in which claims 1-14 are presented for examination and are pending.

Claims 1-14 are rejected.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Art Unit: 2616

3. The abstract of the disclosure is objected to because it contains legal phraseology such as "said" as recited in six instances and it exceeds the suggested length. Correction is required. See MPEP § 608.01(b).

Drawings

4. The drawings are objected to because Fig. 2 recites in three places "MGCPet., al" which should be clarified—should it be "MGCP, et al" or "MGCP, etc."? Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

5. Claim 14 is objected to because of the following informalities:

Claim 14, line 5, recites "a call server 202" – should the reference number be removed to be consistent with the rest of the claims?

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 3, 4 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites the limitation "the format" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 4 recites the limitation "the needed format" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 4 recites the limitation "the media" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 13 recites the limitation "the media capability" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 3, 4 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Christie, et al (US 6,002,689).

Regarding claim 1, Christie discloses a method of interworking teleservice between broadband heterogeneous networks, the heterogeneous networks are connected by call control equipment (signaling processor per Fig. 2) and media interworking equipment (interworking unit per Fig. 2), the call control equipment is used for signaling interworking and controlling call that spans networks, the media interworking equipment is used for mapping media port that spans networks and transmitting media streaming under the control of the call control equipment (abstract; col. 7, line 59 to col. 8, line 2; col. 8, lines 40-50; col. 10, lines 11-20; col. 11, lines 24-35), the method comprising:

receiving a call request coming from a caller party equipment by the call control equipment; (col. 11, line 66 to col. 12, line 67)

determining by the call control equipment whether the call request of the caller party equipment is a call that spans heterogeneous networks; (col. 11, line 66 to col. 12, line 67)

creating connections between the media interworking equipment and the caller party equipment and between the media interworking equipment and a called party equipment under the control of the call control equipment if the call request is a call that spans heterogeneous networks; and transmitting media streaming by the media interworking equipment and realizing media interworking. (col. 11, line 66 to col. 12, line 67)

Regarding claim 3, Christie further discloses wherein, before the step of transmitting media streaming, the method further comprising:

negotiating media capability with the called party equipment by the caller party equipment; (col. 18, lines 20-53; col. 19, lines 52-64)

translating the format of the media streaming by the media interworking equipment if matching of the media capability of the caller/called party equipment is unsuccessful. (col. 18, lines 20-53; col. 19, lines 52-64)

Regarding claim 4, Christie further discloses wherein, the step of translating the format of the media streaming comprising:

recovering incoming media streaming into original media streaming; (col. 18, lines 20-53; col. 19, lines 52-64)

re-encoding and compressing the media streaming according to the needed format of the media. (col. 18, lines 20-53; col. 19, lines 52-64)

Regarding claim 11, Christie further discloses a system of interworking teleservice between broadband heterogeneous networks, comprising:

a piece of media interworking equipment (interworking unit per Fig. 2) connected between the heterogeneous networks for transmitting media streaming between the heterogeneous networks; (Fig. 2; abstract; col. 7, line 59 to col. 8, line 2; col. 8, lines 40-50; col. 10, lines 11-20; col. 11, lines 16-65)

a piece of call control equipment (signaling processor per Fig. 2) connected between the heterogeneous networks for processing call request that spans networks, transmitting signaling and controlling the media interworking equipment; (Fig. 2; abstract; col. 7, line 59 to col. 8, line 2; col. 8, lines 40-50; col. 10, lines 11-20; col. 11, lines 16-65)

the media interworking equipment implements teleservice interworking between heterogeneous networks by establishing a media port that corresponds to caller party equipment and a media port that corresponds to called party equipment and mapping the two media ports under the control of the call control equipment. (Fig. 2; abstract; col. 7, line 59 to col. 8, line 2; col. 8, lines 40-50; col. 10, lines 11-20; col. 11, lines 16-65)

10. Claims 1, 2, 5-7 and 9-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Modarressi and Mohan ("Control and Management in Next-Generation

Networks: Challenges and Opportunities", IEEE Communications Magazine, October 2000; hereinafter Modarressi).

Regarding claim 1, Modarressi discloses a method of interworking teleservice between broadband heterogeneous networks, the heterogeneous networks are connected by call control equipment (MGC/CA/Softswitch per Fig. 4) and media interworking equipment (Trunk gateway/media gateway per Fig. 4), the call control equipment is used for signaling interworking and controlling call that spans networks, the media interworking equipment is used for mapping media port that spans networks and transmitting media streaming under the control of the call control equipment (page 100, right col.), the method comprising:

receiving a call request coming from a caller party equipment by the call control equipment; (page 101, left col., first bullet item)

determining by the call control equipment whether the call request of the caller party equipment is a call that spans heterogeneous networks; (page 101, left col., second bullet item)

creating connections between the media interworking equipment and the caller party equipment (Trunk gateway/signaling gateway and left Residential Gateway per Fig. 4) and between the media interworking equipment and a called party equipment (Trunk gateway/signaling gateway and PSTN/AIN/SS7 cloud per Fig. 4) and under the control of the call control equipment (MGC/CA/Softswitch per Fig. 4) if the call request is a call that spans heterogeneous networks; and transmitting media streaming by the

media interworking equipment and realizing media interworking. (page 101, left col., last three bullet items; last para. of left col. to first para. of right col.).

Regarding claim 2, Modarressi further discloses wherein, the step of creating connection comprising:

creating media port within the caller party equipment; (page 101, left col., last three bullet items)

creating media port that corresponds to the caller party equipment and media port that corresponds to the called party equipment within the media interworking equipment; (page 101, left col., last three bullet items) and

creating media port within the called party equipment. (page 101, left col., last three bullet items)

Regarding claim 5, Modarressi further discloses wherein, the call control equipment sends and receives control signaling via H.248 or MGCP protocol.
(Megaco/H.248 per Fig. 4)

Regarding claim 6, Modarressi further discloses wherein, two or more pieces of call control equipment (two MGCs per Fig. 4) are connected between the heterogeneous networks, and each of the two or more pieces of call control equipment controls different party equipment respectively, the method further comprising:

transmitting a call request by the call control equipment that controls the caller party equipment to the call control equipment that controls the called party equipment;
(SIP-T per Fig. 4; page 100, right col.)

designating one piece of call control equipment to control the media interworking equipment. (page 100, right col.)

Regarding claim 7, Modarressi further discloses wherein, signaling is transmitted between the call control equipment via session initiation protocol for telephones or bearer independent call control protocol. (page 102, left col., first two para.)

Regarding claim 9, Modarressi further discloses wherein, one of the heterogeneous networks is a H.323 network and that H.323 network has a gate keeper and a H.323 gateway therein; the connection between the media interworking equipment and the party equipment in the H.323 network is established by the call control equipment and by the gate keeper that controls the H.323 gateway. (page 102, left col., first two para.) Examiner takes official notice that a gate keeper and H.323 gateway are inherent capabilities of a H.323 network according to standards specifications.

Regarding claim 10, Modarressi further discloses wherein, one of the heterogeneous networks is a SIP network and that SIP network has a SIP proxy and a SIP user agent therein; the connection between the media interworking equipment and the party equipment in the SIP network is established by the call control equipment and by the SIP proxy that controls the SIP user agent. (page 102, left col., first two para.) Examiner takes official notice that a SIP proxy and a SIP user agent are inherent capabilities of a SIP network according to standards specifications.

Regarding claim 11, Modarressi further discloses a system of interworking teleservice between broadband heterogeneous networks, comprising:

a piece of media interworking equipment (Trunk gateway/media gateway per Fig. 4) connected between the heterogeneous networks for transmitting media streaming between the heterogeneous networks; (page 100, right col.)

a piece of call control equipment (MGC/CA/Softswitch per Fig. 4) connected between the heterogeneous networks for processing call request that spans networks, transmitting signaling and controlling the media interworking equipment; (page 100, right col.)

the media interworking equipment implements teleservice interworking between heterogeneous networks by establishing a media port that corresponds to caller party equipment and a media port that corresponds to called party equipment and mapping the two media ports under the control of the call control equipment. (page 100, right col.; page 101)

Regarding claim 12, Modarressi further discloses wherein, the media interworking equipment comprising:

a protocol module for receiving control data from the call control equipment, creating the media ports and establishing correspondence relationship of the media ports; (page 101)

a media transmitting and mapping unit for transmitting media streaming that comes into the media interworking equipment according to the established correspondence relationship. (page 101)

Regarding claim 13, Modarressi further discloses wherein, the media interworking equipment further comprising:

a media translating unit for processing format translation for the media streaming when the media capability or format at both sides does not match. (page 101)

Regarding claim 14, Modarressi further discloses wherein, the call control equipment comprising:

a protocol adapter for receiving and sending control data and receiving call request coming from party equipment; (page. 101)

a call server for controlling call that spans the heterogeneous networks.
(application server per Fig. 4; page 101)

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

Art Unit: 2616

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

14. Claim 8 is rejected under U.S.C. 103(a) as being unpatentable over Christie, et al (US 6,002,689) in view of Williams ("The Softswitch Advantage", IEE Review, July 2002).

Regarding claim 8, Christie discloses all of the subject matter as recited in paragraph 9 of this office action except wherein, two or more pieces of media interworking equipment are connected between the heterogeneous networks, and each of the two or more pieces of media interworking equipment is connected to a different network respectively, the method further comprising:

establishing a media connection between the media interworking equipment connected to the caller party equipment's network and the media interworking equipment connected to the called party equipment's network.

Williams from the same or similar fields of endeavor discloses two or more media gateways are connected between a public packet telephone network (PPTN) and a

public packet mobile network (PPMN), whereas a media connection is established between the media gateway in the PPTN (node 4 per Fig. 2) and the radio access network media gateway in the PPMN (node 5 per Fig. 2; page 28; page 29, left col.).

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine Christie's interworking system with Williams' support of multiple media gateways by configuring two or more media gateways between two networks. The motivation for combining would have been to enable growth and maintenance of the networks.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (see form 892).

16. Examiner's Note: Examiner has cited particular paragraphs, columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s)

Art Unit: 2616

the structure relied on for proper interpretation and, also to verify and ascertain the metes and bounds of the Claimed invention.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luat Phung whose telephone number is 571-270-3126. The examiner can normally be reached on M-Th 7:30 AM - 5:00 PM, F 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Firmin Backer can be reached on 571-272-6703. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LP

A handwritten signature in black ink, appearing to read 'Brian Nguyen', is written over a horizontal line.

**BRIAN NGUYEN
PRIMARY EXAMINER**